CLAIMS

1. A chip solid electrolyte capacitor obtained by connecting a part of the anode part and a part of the cathode part of a capacitor element to an anode terminal and a cathode terminal, respectively, and jacket-molding the capacitor element excluding a part or the whole of respective bottom faces or bottom and side faces of the anode and cathode terminals, wherein the connection face of the cathode terminal to the capacitor element is larger than the entire face of the capacitor element in the side connected to the cathode terminal.

2. The chip solid electrolyte capacitor as claimed in claim 1, wherein the bottom face part of the cathode terminal and the bottom face part of the anode terminal have nearly the same size.

3. The chip solid electrolyte capacitor as claimed in claim 1 or 2, wherein the capacitor element is produced by sequentially stacking an oxide dielectric film layer, a semiconductor layer and an electrically conducting layer on a surface of an anode substrate comprising a sintered body of a valve-acting metal or an electrically conducting oxide.

4. The chip solid electrolyte capacitor as claimed in claim 1, wherein the anode part comprises a distal end

of the anode substrate.

5. The chip solid electrolyte capacitor as claimed in claim 1, wherein the anode part comprises a metal wire or foil connected to the sintered body.

6. The chip solid electrolyte capacitor as claimed in claim 5, wherein the metal wire is selected from tantalum, niobium, aluminum, titanium, alloys mainly comprising such a metal, and these metals and alloys which are partially oxidized and/or nitrided.

7. The chip solid electrolyte capacitor as claimed in claim 1, wherein the material for each of the anode and cathode terminals is selected from iron, copper, aluminum and alloys mainly comprising such a metal.

8. The chip solid electrolyte capacitor as claimed in claim 1, wherein each of the anode and cathode terminals is partially or entirely subjected to plating selected from solder, tin and titanium.

9. The chip solid electrolyte capacitor as claimed in claim 7 or 8, wherein each of the anode and cathode terminals differs in the material.

10. The chip solid electrolyte capacitor as claimed

in claim 3, wherein the valve-acting metal or electrically conducting oxide is tantalum, aluminum, niobium, titanium, an alloy mainly comprising such a valve-acting metal or niobium oxide, or a mixture of two or more members selected from these valve-acting metals, alloys and electrically conducting oxides.

11. The chip solid electrolyte capacitor as claimed in claim 10, wherein a part of the valve-acting metal, alloy or electrically conducting compound is subjected to at least one treatment selected from carbidation, phosphation, boronation, nitridation and sulfidation.

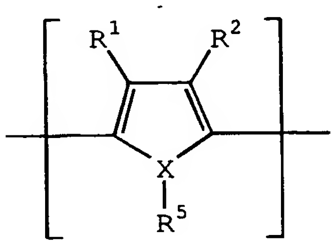
12. The chip solid electrolyte capacitor as claimed in claim 3, wherein the sintered body has a chemically and/or electrically etched surface.

13. The chip solid electrolyte capacitor as claimed in claim 1, wherein the boundary between the anode part and the part excluding the anode part of the anode substrate is insulated by an insulating resin.

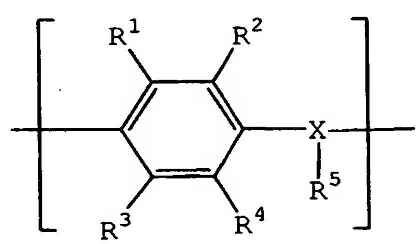
14. The chip solid electrolyte capacitor as claimed in claim 3, wherein the oxide dielectric layer mainly comprises at least one member selected from Ta_2O_5, Al_2O_3, TiO_2 and Nb_2O_5.

15. The chip solid electrolyte capacitor as claimed in claim 3, wherein the semiconductor layer is at least one member selected from an organic semiconductor layer and an inorganic semiconductor layer.

16. The chip solid electrolyte capacitor as claimed in claim 15, wherein the organic semiconductor is at least one member selected from an organic semiconductor comprising benzopyrroline tetramer and chloranil, an organic semiconductor mainly comprising tetrathiotetracene, an organic semiconductor mainly comprising tetracyanoquinodimethane, and an organic semiconductor mainly comprising an electrically conducting polymer obtained by doping a dopant to a polymer containing a repeating unit represented by the following formula (1) or (2):



(1)

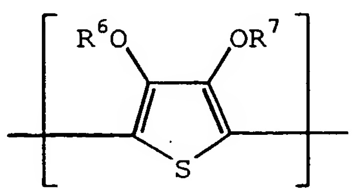


(2)

wherein R^1 to R^4 each independently represents a hydrogen atom, an alkyl group having from 1 to 6 carbon atoms or an alkoxy group having from 1 to 6 carbon atoms, X represents an oxygen atom, a sulfur atom or a nitrogen atom, R^5 is present only when X is a nitrogen atom, and represents a hydrogen atom or an alkyl group having from 1 to 6 carbon

atoms, and each of the pairs of R^1 and R^2, and R^3 and R^4 may combine with each other to form a cyclic structure.

17. The chip solid electrolyte capacitor as claimed in claim 16, wherein the electrically conducting polymer containing a repeating unit represented by formula (1) is an electrically conducting polymer containing a structure unit represented by the following formula (3) as a repeating unit:



(3)

wherein R^6 and R^7 each independently represents a hydrogen atom, a linear or branched, saturated or unsaturated alkyl group having from 1 to 6 carbon atoms, or a substituent for forming at least one 5-, 6- or 7-membered saturated hydrocarbon cyclic structure containing two oxygen atoms when the alkyl groups are combined with each other at an arbitrary position, and the cyclic structure includes a structure having a vinylene bond which may be substituted, and a phenylene structure which may be substituted.

18. The chip solid electrolyte capacitor as claimed in claim 17, wherein the electrically conducting polymer is selected from polyaniline, polyoxyphenylene, polyphenylene

sulfide, polythiophene, polyfuran, polypyrrole, polymethylpyrrole, and substitution derivatives and copolymers thereof.

19. The chip solid electrolyte capacitor as claimed in claim 18, wherein the electrically conducting polymer is poly(3,4-ethylenedioxythiophene).

20. The chip solid electrolyte capacitor as claimed in claim 15, wherein the inorganic semiconductor is at least one compound selected from molybdenum dioxide, tungsten dioxide, lead dioxide and manganese dioxide.

21. The chip solid electrolyte capacitor as claimed in claim 3, wherein the electrical conductivity of the semiconductor is from 10^{-2} to 10^{3} S/cm.

22. A method for producing a chip solid electrolyte capacitor in which a part of the anode part and a part of the cathode part of a capacitor element are connected to an anode terminal and a cathode terminal, respectively, and the capacitor element excluding a part or the whole of respective bottom faces or bottom and side faces of the anode and cathode terminals is molded with a jacket and in which the connection face of the cathode terminal to the capacitor element is larger than the entire face of the capacitor element in the side connected to the cathode

terminal, the method comprising using a lead frame pair having bottom face parts working out to a part of the anode terminal and a part of the cathode terminal, and laminating a metal material which constitutes the anode and cathode terminals having an area larger than the cathode terminal-connected face of the capacitor element on the lead frame corresponding to the cathode terminal.

23. A method for producing a chip solid electrolyte capacitor in which a part of the anode part and a part of the cathode part of a capacitor element are connected to an anode terminal and a cathode terminal, respectively, and the capacitor element excluding a part or the whole of respective bottom faces or bottom and side faces of the anode and cathode terminals is molded with a jacket and in which the connection face of the cathode terminal to the capacitor element is larger than the entire face of the capacitor element in the side connected to the cathode terminal and the bottom face parts of the cathode terminal and the anode terminal which are not jacket-molded have nearly the same size, the method comprising using a lead frame pair having nearly the same bottom face parts working out to a part of the anode terminal and a part of the cathode terminal, laminating a metal material which constitutes the anode and cathode terminals having an area larger than the cathode terminal-connected face of the capacitor element on the lead frame corresponding to the

cathode terminal, and laminating a metal material constituting the anode terminal connected to the anode part of the capacitor element on the lead frame corresponding to the anode terminal.

24. An electronic circuit using the chip solid electrolyte capacitor claimed in claims 1 to 21.

25. An electronic device using the chip solid electrolyte capacitor claimed in claims 1 to 21.